

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Revision of Part 15 of the Commission's Rules)	ET Docket No. 13-49
to Permit Unlicensed National Information)	
Infrastructure (U-NII) Devices in the 5 GHz)	
Band)	

OPPOSITION TO PETITION FOR RECONSIDERATION

Cambium Networks, Ltd. (“Cambium”), by counsel and pursuant to Section 1.429(f) of the rules of the Federal Communications Commission (“FCC”), files this Opposition to the Petition for Reconsideration of the Association of Global Automakers, Inc. (“Global”) and the Alliance of Automobile Manufacturers (“Alliance”) (collectively, the “Petitioners”), filed on May 6, 2016 in the above-captioned proceeding (“Automakers’ Petition”).¹

Petitioners seek reconsideration of certain actions taken in the March 2, 2016 Memorandum Opinion and Order (“*MO&O*”) in the above-captioned proceeding.² The *MO&O* addresses seven petitions for reconsideration of the 2014 First Report and Order (“*First R&O*”),³ including Cambium’s,⁴ by relaxing the over-restrictive “unwanted emissions” limit (“OOBE limit”) that the FCC adopted in the *First R&O* for certain National Information Infrastructure (U-NII) devices, particularly those operating in the U-NII-3 band (5.725-5.850 GHz). Petitioners seek reconsideration of the *MO&O* based on claimed impacts of the rule on Dedicated Short Range

¹ Petition for Reconsideration filed by the Association of Global Automakers, Inc. and the Alliance of Automobile Manufacturers, ET Docket No. 13-49 (filed May 6, 2016) (“Automakers’ Petition”).

² *Revision of Part 15 of the Commission's Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band*, ET Docket No. 13-49, Memorandum Opinion & Order (Mar. 2, 2016) (“*MO&O*”).

³ *Revision of Part 15 of the Commission's Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band*, First Report and Order, ET Docket No. 13-49 (rel. April 1, 2014) (“*First R&O*”).

⁴ Petition for Reconsideration of Cambium Networks, Ltd., ET Docket No. 13-49 (filed August 4, 2014) (“Cambium Petition”).

Communications (“DSRC”) at 5.855-5.925 GHz, licensed for the Intelligent Transportation Service. As described herein, the FCC has had ample opportunity to fully consider the impact of the *MO&O*’s rule changes on DSRC systems, and the Petitioners have had ample opportunity to comment; accordingly the Petitions fail to justify further reconsideration of the *MO&O*.

Background

On April 1, 2014, the FCC released the *First R&O*, which among other things extended the upper edge of the U-NII-3 band to 5.85 GHz and replaced the Section 15.247 out-of-band emissions (“OOBE”) limit with the much more restrictive limit found in Section 15.407.⁵ The Commission also imposed a June 2, 2015 deadline for compliance with the revised Section 15.407 rules for certain U-NII devices. As a manufacturer of 5.8 GHz long-range equipment to support fixed wireless broadband and backhaul, Cambium objected to these more restrictive limits, both in Comments,⁶ and in the Cambium Petition.⁷ Separately, Global filed comments and reply comments jointly with the Alliance.

In the Cambium Petition, Cambium stated that the Section 15.407 limit would have severely hindered performance of 5.8 GHz long-range equipment and would have made such equipment significantly more expensive for Cambium and other manufacturers to produce and significantly more expensive for wireless Internet service providers to deploy, all to the detriment of service to broadband subscribers, both existing and new, particularly in rural markets with low population density. Other parties such as JAB Wireless, Inc., Mimosa Networks Inc. and the Wireless Internet Service Providers Association also sought reconsideration of the OOBE limit, and several other commenters filed in support of the petitions, as the Commission noted in the

⁵ Compare 47 C.F.R. §15.247 with 47 C.F.R. §15.407.

⁶ Comments of Cambium Networks, Ltd., ET Docket No. 13-49 (filed May 28, 2013) (“Cambium Comments”), p. 4.

⁷ Cambium Petition at pp. 6-15.

MO&O. Separately, Global submitted a petition for reconsideration of the *First R&O*, claiming that the FCC “failed to explain how its decision to allow additional, higher-powered, unlicensed U-NII devices to operate in the 5 GHz band would not cause harmful interference to previously-authorized DSRC operations.”⁸

In subsequent months, these parties and other stakeholders⁹ made joint presentations to the FCC in an effort to propose workable, consensus-driven alternatives to the *First R&O*’s OOB limit that would, among other things, meet the FCC’s concerns about protecting Terminal Doppler Weather Radar (“TDWR”). First, on March 31, 2015, several stakeholders submitted an *ex parte* filing to propose several certification requirements applicable to point-to-point equipment (“Initial Consensus Proposal”). On April 14, 2015, stakeholders later submitted a request for waiver of the June 2, 2015 compliance deadline for certifications under the revised Section 15.407 rules. On June 1, 2015, the FCC issued an order giving public notice that the Commission would be waiving certain compliance deadlines as it was considering the Initial Consensus Proposal.¹⁰

On November 4, 2015, a “Joint Emissions Proposal” was submitted by Cambium, Alcatel-Lucent, Fastback Networks, JAB Wireless, Mimosa Networks, Ubiquiti Networks, Inc., Zebra Technologies and WISPA – a group that included all of the petitioners for reconsideration of the OOB limit adopted in the *First R&O*. Stakeholders also sought a further brief waiver of the certification deadline, and on December 3, 2015, the FCC granted a waiver in an Order that extended the December 2, 2015 deadline until March 2, 2016. According to the FCC, the waiver was granted in part to give the FCC “adequate time to consider the entire record” in light of the

⁸ *MO&O* at para. 18.

⁹ These stakeholders included Alcatel-Lucent, American Petroleum Institute, Cambium Networks, Inc., Fastback Networks, JAB Wireless, Inc., Mimosa Networks, Inc., Zebra Technologies (formerly Motorola Solutions) and WISPA.

¹⁰ *Revision of Part 15 of the Commission’s Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band*, ET Docket No. 13-49, Order (rel. June 1, 2015).

number of filings in the docket and the “most recent proposal being submitted as recently as November 4, 2015.”¹¹

In the *MO&O*, the FCC adopted rules based on the Joint Emissions Proposal, finding “that the rules we are adopting here will allow point-to-point systems to operate, while avoiding harmful out of band interference, without excessive difficult or cost.”¹² In addition, the FCC noted that the approach would “provide a single, consistent OOB requirements for all equipment” and would “avoid the need for onerous oversight by the Commission.”¹³ In rejecting Global’s petition for reconsideration of the *First R&O*, the FCC determined that “DSRC systems will receive greater interference protection under the emission mask adopted in this *MO&O* than was provided under the old rules.”¹⁴ The FCC then went on to describe its underlying reasoning and noted that “we believe the additional level of protection afforded to DSRC systems is sufficient because unlike the TDWR, the DSRC systems were not experiencing interference problems previously.”¹⁵

The Automakers’ Petition followed. The Petitioners claim that the FCC did not evaluate or examine the impact of the rule changes on adjacent band services. The Petitioners ask the FCC to “revise Section 15.407 to reinstate the OOB limits established in the *First R&O* for 5.785-5.85 GHz non-fixed point-to-point (“non-P2P”) devices, while maintaining the more-relaxed OOB limits established in the *MO&O* for fixed point-to-point (“P2P”) systems.”¹⁶ The Petitioners, individually and jointly, have participated actively in this docket. Global filed comments and reply comments jointly with the Alliance, participated in ex parte presentations at the FCC, and filed a petition for partial reconsideration and a reply to oppositions to Global Automakers’ petition for

¹¹ *Revision of Part 15 of the Commission’s Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band*, ET Docket No. 13-49, Order (Dec. 3, 2015)

¹² *MO&O* at para. 15.

¹³ *Id.*

¹⁴ *Id.* at para. 23.

¹⁵ *Id.*

¹⁶ Automakers’ Petition at p. 2.

partial reconsideration. Nevertheless, neither Global nor the Alliance filed comments addressing the Initial Consensus Proposal or the Joint Emissions Proposal prior to the issuance of the *MO&O*, despite public notice of these filings in the docket and ample opportunities to comment.

Discussion

The Automakers' Petition must be dismissed due to incurable defects. By rule, certain categories of petitions for reconsideration of an FCC action "plainly do not warrant consideration by the Commission."¹⁷ Such petitions include those that rely on "arguments that have been fully considered and rejected by the Commission within the same proceeding" or that "[f]ail to identify any material error, omission, or reason warranting reconsideration."¹⁸ The Automakers Petition suffers from just these fatal defects and, accordingly, must be rejected.

The Petitioners acknowledge that they have made numerous filings in this docket; as a result, they cannot now claim a lack of notice. Indeed, in this docket, one or both of the Petitioners repeatedly have claimed that the FCC's rule changes in the adjacent U-NII bands would result in "harmful interference" to DSRC operations in the 5.9 GHz band:

- In Comments filed on May 28, 2013, Global and the Alliance claimed that "[b]ecause U-NII devices operating in or adjacent to the 5.9 GHz band would transmit at significantly higher maximum power levels than DSRC systems, U-NII operations in the 5.9 GHz band have the potential to cause harmful interference to sensitive DSRC safety applications."¹⁹
- In Reply Comments filed on July 24, 2013, Global and the Alliance claimed that extension of the U-NII-3 band "will serve to multiply the number of unlicensed devices operating in bands adjacent to the 5.9 GHz band, with a corresponding number of unlicensed systems that could negatively affect DSRC users and increase the potential for harmful interference."²⁰

¹⁷ 47 C.F.R. § 1.429(l).

¹⁸ *Id.*

¹⁹ Global Comments at 30.

²⁰ Global Reply Comments at 30.

- In its “Petition for Partial Reconsideration” of the *First R&O*, filed on May 1, 2014: “Global specifically requests that the FCC partially reconsider its decision to allow U-NII devices to operate in the 5.9 GHz band adjacent to ITS.” Global asked the FCC to use “lab testing and study” to determine “whether” additional unlicensed operation of high-powered U-NII devices in 5 GHz band adjacent to ITS “will cause harmful interference to ITS and [DSRC] ‘safety-of-life’ operations.”
- In their “Petition for Reconsideration,” filed on May 9, 2016: “Global Automakers and the Alliance specifically request that the FCC reconsider its decision to greatly relax the OOB limit for all unlicensed devices operating in 5.725-5.85 GHz because this rule change will likely allow harmful interference to DSRC operations in the 5.9 GHz band.”

The FCC has received, considered and twice addressed these claims of harmful interference to DSRC operations in the 5.9 GHz band from adjacent-band U-NII operations. Despite an extensive record of participation and the Commission’s explicit and reasoned rejection of the Automakers’ claims, both in the *First R&O* and in the *MO&O*, the Automakers persist in disingenuously claiming now that the rules adopted in the *MO&O* are “not the product of thoughtful public comment” that were “adopted by the Commission without meaningful notice or consideration.”²¹

To the contrary, after extensive notice and consideration, the FCC has explained the grounds for rejecting the Petitioners’ previous arguments in this proceeding. In the *First R&O*, the FCC stated that “[w]e disagree with Alliance and Global that extending the upper edge of the U-NII-3 band will increase the harmful interference risk to DSRC services. Unlicensed devices are allowed to operate within the 5.825-5.85 GHz band under Section 15.247 of our rules with higher unwanted emission levels than we are adopting for the combined rule part.”²² In the *MO&O*, the FCC rejected Global’s request to revisit the rules for unlicensed devices operating in U-NII-3, stating that “DSRC systems will receive greater interference protection under the emission mask

²¹ Automakers Petition at p. 6.

²² *First R&O* at para. 94.

adopted in this *MO&O* than was provided under the old rules.”²³ The rules adopted in the *MO&O* represent a logical outgrowth of the rules initially proposed in the NPRM, and the FCC repeatedly has articulated the reasons why it rejected the automakers’ arguments.

Moreover, the Automakers’ Petition is untimely. The *MO&O* adopts the Joint Emissions Proposal that Cambium and other stakeholders filed in the docket on November 4, 2015 – a proposal that incorporated elements that were proposed on July 2, 2015. A simple docket search would have indicated that various joint stakeholders met with the FCC at different times on a “permit but disclose” *ex parte* basis to discuss the OOB limits and that copies of the various proposals were submitted into the record. Moreover, in each instance when the FCC granted an extension of the compliance deadline, the associated Public Notice indicated that joint stakeholders had submitted proposals for resolving these issues. While the Automakers submitted an *ex parte* filing with the Commission on December 22, 2015, this filing is silent with respect to the Joint Emissions Proposal submitted just six weeks prior. Simply put, the automakers had a full and fair opportunity to timely submit information into the record about their concerns but instead utterly disregarded administrative efficiency by waiting until after the *MO&O* was adopted before filing a petition for reconsideration.

The Joint Emissions Proposal represents months of hard work and cooperation across an array of industry representatives, and the Automakers’ Petition simply goes against the weight of the substantial record developed in this proceeding. In light of the Automakers’ Petition’s defects and of the many stated benefits of the Joint Emissions Proposal, Cambium requests that the Commission dismiss the Petition.

²³ *MO&O* at para. 23.

Conclusion

Despite their active participation in a multi-year FCC effort to develop and implement technical rules for the U-NII band, and after the FCC has rejected their arguments multiple times in this proceeding, Petitioners have chosen to seek reconsideration rather than to timely address the complex technical, legal and policy issues associated with setting technical rules for devices certified to operate in the U-NII-3 band. To promote regulatory certainty for the many service providers, manufacturers and consumers that rely on fixed wireless infrastructure, and to facilitate the continued deployment of broadband services particularly to rural areas, the Commission should dismiss the Automakers' Petition.

Respectfully submitted,

CAMBIUM NETWORKS, LTD.

Rini O'Neil, PC

By: _____/s/_____

June 23, 2016

Jonathan E. Allen
1200 New Hampshire Ave. NW, Suite 600
Washington, DC 20036
Counsel to Cambium Networks, Ltd.

CERTIFICATE OF SERVICE

I, Jonathan Allen, of the law firm of Rini O'Neil, P.C., hereby certify that I have caused a copy of the foregoing **OPPOSITION TO PETITION FOR RECONSIDERATION** to be sent by e-mail (noted by *), this 23rd day of June, 2016 to:

James Arden Barnett, Jr., Esq.*
Ian D. Volner, Esq.
Peter S. Frechette, Esq.
Cristina I. Vessels, Esq.
Venable LLP
575 7th Street, NW
Washington, D.C. 20004
*Attorneys for the
Association of Global Automakers, Inc.*

Ari Q. Fitzgerald, Esq.*
Wesley B. Platt, Esq.
Hogan Lovells LLP
Columbia Square
555 13th Street, NW
Washington, D.C. 20004
*Attorneys for the Alliance
of Automobile Manufacturers*

/s/

Jonathan E. Allen